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ABSTRACT

This issue of ENC Focus highlights laserdiscs and CD-ROMs that encourage students to raise searching questions, enter debates, formulate opinions, and engage in problem solving and critical thinking. The laserdiscs and CD-ROMs were chosen based on the criteria of instructional design, content, and interest. Items featured include: The Chemistry Set; Rainforest Researchers; The Great Ocean Rescue; Genetics: Fundamentals and Frontiers, Level I; The Great Solar System Rescue; Plants, Patterns, and Forces; Primary Science, Volume 1; The Voyage of the Mimi; The Human Body; Pip and Zena's Science Voyage; TimeShift Radio: Electricity and Communication; Tri-City Science Club; Animal Pathfinders, Level III; Planetary Manager, Level III; Thinkin' Things Collection I; Sammy's Science House: What's the Secret? Volume I; The Wreck of the Fortuna Dourada; Science Sleuths, Volume I: The Mysteries of the Blob and the Exploding Lawnmowers, Version 1.0; The Miracle of Life, Level III; Understanding Earth; Life Sciences, Level III; Liquid Assets: The Ecology of Water, Level I; HIP Biology I: Discover Biology through Hands-On Image Processing; Physics of Sports: An Interactive Videodisc for Analyzing the Motion of Athletes; Real World Problem Solvers: The Garbage Dump Dilemma; and Our Environment. (JRH)

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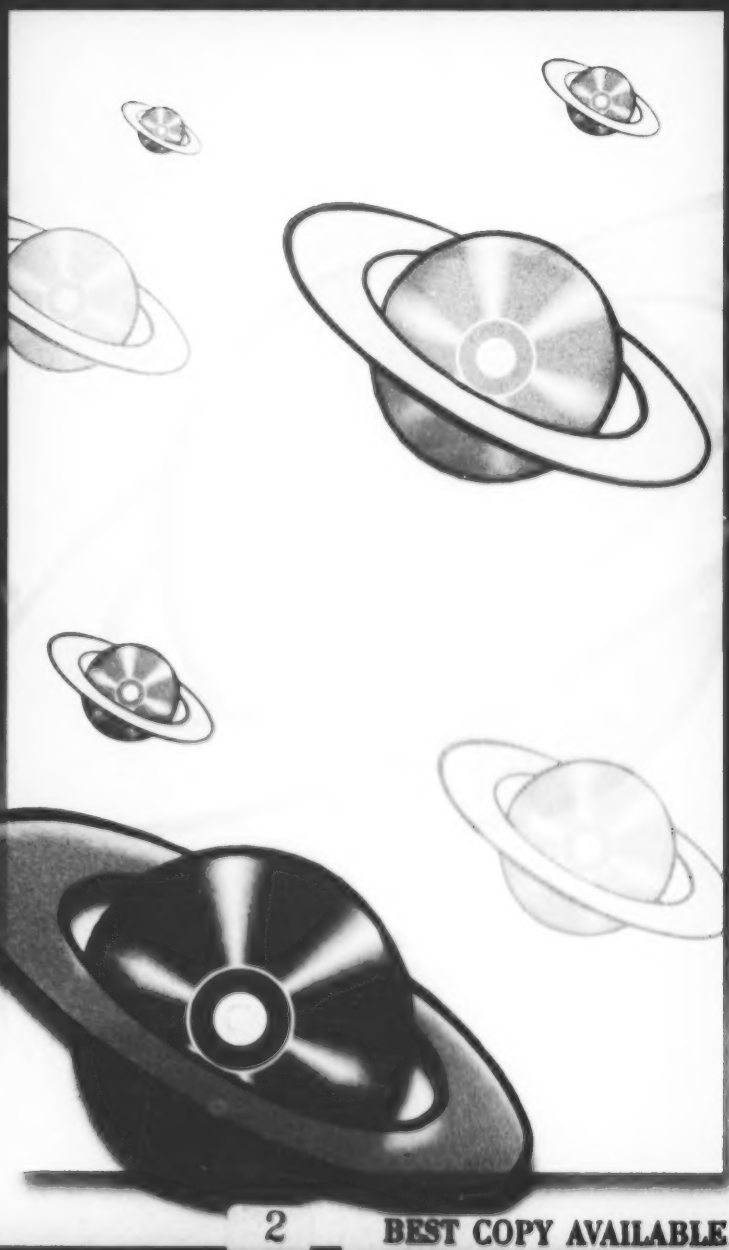
Volume 4, Issue 3, 1997

ENC FOCUS

For Mathematics and Science

ED 409 214

CD-ROMs and Laserdiscs for Science



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Using ENC to learn more about software

The Eisenhower National Clearinghouse for Mathematics and Science Education was established to help K–12 teachers locate useful teaching materials. The Clearinghouse collects all types of materials at the National Repository in Columbus, Ohio, at The Ohio State University. ENC makes information available about all of these resources in several ways. For example, this print catalog is one of a series that highlights specific topics and resources in math and science. All of ENC's resources in combination will provide comprehensive information for teachers on a variety of topics, including CD-ROMs and laserdiscs.

ENC Online

ENC Online has links to exemplary science and math Internet sites through the Digital Dozen, selected monthly, classroom links, and other educational resources. Some Internet sites are available with information about using technology in the classroom. You can find them in two ways: search Resource Finder, or browse through the links on ENC Online. If you have time to browse, you will find all kinds of things you might be able to use in your classroom. ENC Online also links to some of the full-text articles featured on ENC CDs.

ENC CDs

ENC's CD-ROMs have a variety of previously published documents in electronic format about curriculum issues in math and science education, including curriculum support materials, State curriculum frameworks, and articles from professional journals. These documents cover curriculum standards and implementation, and include the complete 1989 *NCTM Curriculum and Evaluation Standards for School Mathematics*. These documents and other valuable materials are included on ENC's CD-ROMs, which are available free to schools.

ENC Demonstration Sites

Located throughout the country, these 12 sites can be found at or in conjunction with the 10 Eisenhower Regional Consortia (see inside back cover), at the Capital Collection & Demonstration Site at George Washington University in Washington, DC, and at ENC. Teachers and other educators can visit or contact the Site in their area for a complete demonstration of ENC's services as well as assistance in locating educational materials and using new technologies.

Teacher contributions to ENC

To create a better service, ENC needs the help of the Nation's educators. ENC Online's newest tool, the Professional Development Exchange, offers one place where educators can both submit and search for professional development events and opportunities, such as workshops, conferences, or grant monies. However, this tool will only be useful if educators use and contribute to it. For more information, visit ENC Online at <http://www.enc.org>.

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U. S. Department of Education	***Office of Educational Research and Improvement***	***Office of Reform Assistance and Dissemination***
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ENC FOCUS

CD-ROMs and Laserdiscs for Science

In this issue...

Introduction 2

Table of Contents 3

CD-ROMs and Laserdiscs 4

Internet Resources 31

About ENC Focus

ENC Focus is published periodically by the Eisenhower National Clearinghouse for Mathematics and Science Education, funded through Contract No. R392126001 from the U.S. Department of Education's Office of Educational Research and Improvement (OERI). The ideas and opinions expressed in this publication do not necessarily reflect the positions or policies of the Department of Education or OERI.

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For help with ENC's online services, call the technical help desk at (614) 292-9590 or send e-mail to help@enc.org.

To request copies of any issue of the ***Focus*** series, contact ENC at the address above, or send e-mail to editor@enc.org. While some issues are out of print, all issues of this series are available online or on CD-ROM.

Past titles include *Equity in the Classroom, Earth Day in the Classroom, Real Data Resources for Teachers, Active Learning with Hands-on Resources, Integrating Math and Science, New Approaches to Assessment in Science and Mathematics,* and *Calculator-Active Materials.*

How to Connect to ENC Online

To connect to ENC Online via the Internet, visit ENC's World Wide Web site at: <http://www.enc.org>. You can also telnet to enc.org; via modem dial (800) 362-4448 or (614) 292-9040. Set your communication software to VT100 terminal emulation, no parity, 8 data bits, 1 stop bit, and full duplex. Once connected, press <RETURN> to bring up a screen and type c to connect. All the information you need to use ENC is on the screen.

ENC Reference Services

Teachers with questions about math or science curriculum resources can call the ENC reference staff. Reference services include locating suitable teaching materials, identifying Federally-funded programs and opportunities, and making the best use of ENC's online services and Resource Finder, ENC's catalog of curriculum resources. Call the Reference Desk at ENC's toll-free number or dial (614) 292-9734. Send e-mail questions to library@enc.org.

ENC Mathematics Advisory Board

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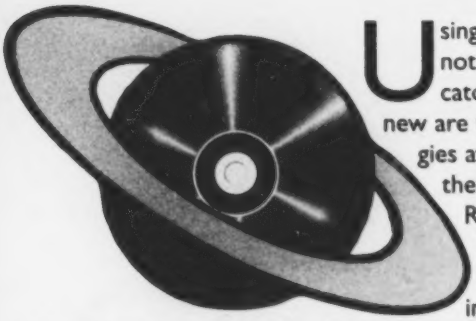
ENC FOCUS
CD-ROMs and Laserdiscs for Science



Using technology is not new to educators. What is new are the technologies available for them to use. Recent technological developments including laserdiscs and CD-ROMs hold promise for facilitating the educational reform efforts. When a school district or teacher has formulated a vision of reform, technology can be used to help attain it. Electronic media can bring students previously unimagined experiences and information. Laserdiscs and CD-ROMs can put thousands of images and topics at students' fingertips. Students can use technology as a tool for thinking and learning more deeply about content. Many of the laserdiscs and CD-ROMs highlighted in this issue encourage students to raise searching questions, enter debates, formulate opinions, and engage in problem solving and critical thinking.

The current multimedia wave began with the laserdisc, a medium that remains very useful in the science classroom. Most laserdiscs combine video, sound, graphics, still photography, animation, and text. A standard 12-inch laserdisc can hold up to 30 minutes of motion video and 54,000 still images, as well as audio. Any frame can be instantly accessed, and videodiscs do not wear out or require a computer, although they do require a laserdisc player. Laserdiscs provide direct instruction to large and small groups and to individuals.

The newer cousin of the laserdisc, the CD-ROM, is a compact disc that acts as a mass storage device for a computer. One CD-ROM can hold about 600 mega-bytes of text—enough to store an entire set of encyclopedias. CD-ROMs can include text, graphics, audio, and even limited video. For classrooms with Internet access, many CD-ROMs contain hot links that launch users directly into the Web to find additional educational resources. There are many educational science CD-ROMs available for both reference and instruction.

In deciding what technology works best for their district, school, or classroom, educators must first determine whether the program supports the instructional concepts, themes, and philosophy embodied in their district's course of study or framework. They should also look at the product's instructional design, including whether the material and pedagogy are appropriate for the stated grade level, whether the objectives are readily identifiable, and whether the program contains suitable instructional support materials. In addition, educators need to determine whether the content is accurate, current, thorough, relevant for the assigned grade levels, and usable across the curriculum. Interest level is important in determining the material's capacity to promote critical thinking skills and to motivate, engage, and intellectually stimulate students.

The laserdiscs and CD-ROMs in this issue of *Focus* were chosen based on three criteria: instructional design, content, and interest. For example, *Rainforest Researchers*, a CD-ROM kit for grades five to eight, is designed to supplement curriculum units on plant biology, rainforests, ecology, and biodiversity. The program familiarizes students with scientific methods and the nature of scientific research. Another resource in this issue, *The Principles of Physical Science*, is a laserdisc for grades 9–12 that presents a survey of topics such as matter, waves, electricity, and magnetism. It contains a variety of video segments and more than 2,500 still images.

While this issue of *ENC Focus* can only describe a portion of the electronic media currently available to educators, other ENC products and services can help teachers develop a greater knowledge of the types of resources they can use in their classroom instruction. For more information, please read the preface on the inside front cover.

– Kimberly S. Roempler, Ph.D.

ENC FOCUS CD-ROMs and Laserdiscs for Science

Items Featured in This Issue

Pricing and ordering information were verified in April 1997 and are subject to change.

Title	Grades	Price	Pg
The Chemistry Set		$350.00	
Rainforest Researchers		$199.95	5
The Great Ocean Rescue		$349.95	6
Genetics: Fundamentals and Frontiers, Level I		$495.00 *	7
The Great Solar System Rescue		$349.95	8
Plants, Patterns, and Forces		$410.00	9
Primary Science, Volume I		$545.00	10
The Voyage of the Mimi		$1,150.00 *	11
The Human Body		$595.00	12
Pip & Zena's Science Voyage		$249.95	13
TimeShift Radio: Electricity and Communication		$149.95	14
Tri-City Science Club		$249.95	15
Animal Pathfinders, Level III		$493.75	16
Planetary Manager, Level III		$395.00	17
Thinkin' Things Collection 1		$59.95 *	18
Sammy's Science House		$59.95	19
What's the Secret? Volume I		$29.95	20
The Wreck of the Fortuna Dourada		$39.00	21
Science Sleuths, Volume 1: The Mysteries of the Blob and ...		$79.95	22
The Miracle of Life, Level III		$493.75	23
Understanding Earth		$495.00	24
Life Sciences, Level III		$325.00	25
Liquid Assets: The Ecology of Water, Level I		$329.95	26
HIP Biology 1: Discover Biology through Hands-on Image Processing		$99.95	27
Physics of Sports: An Interactive Videodisc for Analyzing the Motion ...		$249.00	28
Real World Problem Solvers: The Garbage Dump Dilemma		$175.00	29
Our Environment		$49.95	30

* *Please see record for details*

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Landmark Media, Inc. (distributor)
3450 Slade Run Drive
Falls Church, VA 22042
Telephone: (703) 241-2030 (ask for Linda Peters)
Toll-free: (800) 363-3163
Fax: (703) 536-9540 or (609) 448-3984
E-mail orders: Landmrkmed@aol.com
1 CD-ROM package: Order #: 3-9000 $350.00

The Chemistry Set

1995

Grade levels: *5–12*

Abstract

This CD-ROM is an interactive encyclopedia of chemical experiments, molecular structures, and information. The Periodic Table is the point from which the user gains access to a number of sections, including over 350 video sequences of key chemical experiments and processes. Also available are more than 400 interactive molecular structures of simple or giant molecules and ionic lattices that can be rotated and viewed using ball and stick, stick, or ball views. One section features 100 element cards containing numerical data of atomic, physical, biological, and environmental properties. This data can be searched and processed into graphs and bar charts. Users can peruse 4,000 text items, such as history, uses, and hazards, as well as a glossary and information on famous scientists. A database provides information on 500 compounds, including oxides and chlorides for all elements. Additional support materials include a complete list of photographs, video sequences, and molecular models. The CD-ROM package also provides some investigational ideas for teachers and students based on The Chemistry Set *program and the requirements of the* Science National Curriculum *in England and Wales. One sample idea suggests using the color display of the Periodic Table to compare trends in the physical properties of the elements. (Author/KSR)*

Author

Produced by New Media Productions, Nottingham University, and Saqqara Technology

Reference No.

ENC-003991

System Requirements

Windows: 16 bit audio; double-speed CD-ROM drive; 486 25 MHz; 8MB RAM; 160MB hard disk; SVGA color monitor; Windows 3.1 or higher

Related Resources

Materials (PC edition, Version 1.00)
This CD-ROM, designed for grades 9–12, features a chemistry database of more than 150 materials, 70 video clips, 15 standard tests, and 5 user interactive tests. (ENC-007196) *Thomson Science (distributor), toll-free: (800) 354-9706*

Chemistry at Work: Image Database for Chemistry. Level III
This laserdisc, developed for grade 10 and up, provides a database of photographs, films, and computer graphics to help students learn chemistry. (ENC-001238) *Videodiscovery, Inc., toll-free: (800) 548-3472*

Tom Snyder Productions, Inc.
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 software package: Order #: RAI-A $199.95
Note: Can be ordered on 45-day trial basis. Mention ENC when ordering and receive free resource book ($19.95 value). Contact publisher for additional details.

Rainforest Researchers

1996

Grade levels: *5–8*

Abstract

This CD-ROM kit is designed to supplement curriculum units on plant biology, rain forests, ecology, and biodiversity. Through scientific analysis, decision making, and team work, students are involved in botanical and ecological research in the rain forests of Indonesia. Users learn about plant classification and anatomy, the relationships between plants and their environment, and plant chemistry and compounds. They also explore ecological systems, deforestation, and sustainable development. The program targets the development and reinforcement of critical thinking and problem- solving skills. Another goal is to familiarize students with scientific methods, the nature of scientific research, and the process of building and supporting a hypothesis. The first case to be solved concerns a durian tree that is not producing any fruit. The team must utilize their $40,000 budget to analyze the problem, choose an expert test, analyze the test results, and rank the possible causes, such as poor pollinators or faulty flowers. Once the cause is determined, students then connect it to the entire ecosystem. The Teacher's Guide includes hands-on experiments, blackline masters, Internet resources, extension activities, and notes on methods of evaluation. (FEB)

Author

Principal investigator: Cecilia Lenk; designed and developed in collaboration with Harvard University's Arnold Arboretum

Reference No.

ENC-006492

System Requirements

Macintosh: System 7.1 or above; 5MB of RAM; Power PC with system 7.1 or later requires 8MB RAM
Windows: 25 MHz 486 PC; Windows 3.1 or higher; 8MB RAM; color monitor; double-speed CD-ROM drive; sound card

Funding

National Science Foundation (NSF)

Related Resources

Rain Forest Level III
This laserdisc, designed for students in grades 5–12, covers such topics as the importance and discovery of rain forests, and special adaptations that allow animals and plants to survive in the tropical environment. (ENC-001416) *National Geographic Society, toll-free: (800) 368-2728*

The Rainforest
This CD-ROM, part of the Zoo Guides series designed for grades 5–12, describes the main characteristics of rain forests and includes a detailed guide to the plants, animals, and people that inhabit them. (ENC-002813) *Gazelle Technologies, Inc. (distributor), toll-free: (800) 237-6675*

Tom Snyder Productions, Inc.
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 laserdisc kit: Order #: GOR-A $349.95
Note: Can be ordered on 45-day trial basis. Mention ENC when ordering and receive free resource book ($19.95 value). Contact publisher for additional details.

The Great Ocean Rescue, Version 2.0

1996

Grade levels: *5–8*

Abstract

This laserdisc package is designed to engage students in learning about earth science, marine biology, environmental science, oceanography, and geography. Cooperative groups of students are involved in four rescue missions, one of which involves a ghost net that has caught a test cargo of baby fish. Students must first determine where the fish have been taken and then release them in the best possible way. In another mission, students must discover where illegal polluters have dumped their contaminants and then gather evidence to convict the criminals. The third mission asks students to locate a damaged underwater vehicle and to figure out what has been killing the coral. In the last mission, a super submarine has sprung a leak and students must find where it is stuck so they can complete its research mission. The package contains a video library of short movies and stills organized into three main topics: the ocean, the array of life found in and around it, and pollution. The associated lesson plans involve students in experiments, investigations, and other activities. Reproducible worksheets are provided in the teacher's guide and worksheet packet. Also provided are suggestions for assessment, such as observing and recording behavior, using a pretest and post test, and implementing performance evaluation. Macintosh computer software is available to automate the laserdisc's activity and library components. A CD-ROM version is also available. (LZ)

Author

Tom Snyder Productions, Inc., Massachusetts Corporation for Educational Telecommunications (MCET), and Chedd-Angier Company

Reference No.

ENC-000446

System Requirements

Laserdisc player with monitor; barcode reader, remote control or Macintosh computer (Macintosh Plus or better; 2MB RAM; 3MB free hard disk space; computer interface cable)

Funding

United States Department of Education (ED); Office of Educational Research and Improvement (OERI)

Evaluation

Awards: *Technology & Learning*, Award of Excellence; New York Film Festival, top award in middle school science. Citation: Reviewed for and included in *Resources for Teaching Elementary School Science* (1996) of the National Science Resources Center (NSRC).

Related Resources

Investigating Science: Treasures from the Deep, Level I
This laserdisc package, developed for secondary school students, focuses on American history, scientific methods, and robotics, as well as chemistry, meteorology, and biology. (ENC-001247) *Ztek Co. (distributor), toll free: (800) 247-1603*

Coral Kingdom
This CD-ROM package, developed for grades 8–12, investigates coral reef environments and addresses science themes such as ecosystems, adaptations, energy, and human impacts. (ENC-001780) *Sunburst Communications, Inc., toll-free: (800) 321-7511*

Videodiscovery, Inc.
1700 Westlake Avenue N, Suite 600
Seattle, WA 98109-3012
Toll-free: (800) 548-3472
Fax: (206) 285-9245
1 laserdisc package: $495.00
Note: Teacher manual included in above price.

Genetics: Fundamentals and Frontiers, Level I

1995

Grade levels: *9–12*

Laserdisc

Abstract

This laserdisc kit is a multimedia instructional curriculum that covers fundamental aspects of traditional genetics, molecular biology, and biotechnology. It includes a curriculum manual and a two-volume directory and tutorials guide. The laserdisc contains hundreds of photographic images and more than 3,000 diagrams, tables, and graphs. It also includes more than 50 minutes of video footage and animations. The curriculum manual is a collection of 18 lesson plans that cover major genetics topics. Each lesson includes a laboratory investigation, concept development and discussion, assessment, and extension activities. In sample activities, students simulate karyotype and restriction analyses, isolate DNA from an onion, and use role playing to learn about gene expression. Assessments consist of problems, short answer, and extended response items. Complete instructions, reproducible worksheets, and background information are provided for each unit. All visual resources on the disc are listed in the Directory. It includes 48 tutorials, each with a series of images, animation, lecture notes, and information. Also incorporated into the tutorials are ten mini documentaries covering topics such as Huntington's Disease and genetic counseling. The Molecular Methods section provides still photographs that demonstrate molecular biology techniques. (Author/LCT)

Author

Executive producer/publisher: D. Joseph Clark; project director: Robert C. Holl

Reference No.

ENC-007896

System Requirements

Laserdisc player and color monitor; barcode reader

Funding

National Science Foundation (NSF)

Related Resources

The Cell Biology Videodisc: Motion and Function of the Living Cell, Level III
This laserdisc, designed for grades 9–12, provides a database of over 250 photographs and 80 movies for teaching cell motion and structure. It covers types, constituents, and mobility of various living cells. (ENC-001240) *Videodiscovery, Inc., toll-free: (800) 548-3472*

The Cell
This laserdisc for grades 7–12 covers cell components and cell reproduction. The disc consists of 28 minutes of video, animated segments, and 75 photographs. (ENC-001358) *National Geographic Society, toll-free: (800) 368-2728*

Human Body, Level III
This laserdisc kit, designed for grades 4–7, contains three volumes that allow students to explore basic human anatomy and physiology. (ENC-005254) *National Geographic Society, toll-free: (800) 368-2728*

Tom Snyder Productions
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 laserdisc kit: Order #: GSS-A $349.95
Note: Can be ordered on 45-day trial basis. Mention ENC when ordering and receive free resource book ($19.95 value). Contact publisher for additional details.

The Great Solar System Rescue

1996

Grade levels: *5–8*

Abstract

This laserdisc package is designed to engage students in learning about the solar system and other aspects of planetary science. The laserdisc contains a cooperative learning Rescue Activity and a Video Library filled with complementary movies and stills. The Rescue Activity involves students in four missions to rescue probes lost in the solar system. Divided into groups of four, students must consult expert reports and laserdisc segments for scientific knowledge, use deductive logic, argue their viewpoints, and listen to the views of others. The Video Library contains short movies and stills organized into three main topics: Planetary Basics, Planets and their Moons, and Ancient Skywatchers. The topics covered in the Ancient Skywatchers section present multicultural perspectives of the solar system and beyond. The 19 associated lesson plans involve students in experiments, simulations, investigations, and other activities that further explore the content area. Reproducible worksheets are provided in the teacher's guide and worksheet packet. Assessment suggestions include observing and recording behavior, using a pretest and post-test, and implementing performance evaluation. Macintosh computer software is available to automate the laserdisc's activity and library components. A CD-ROM version is also available. (LZ)

Author

Tom Snyder Productions, Inc., Massachusetts Corporation for Educational Telecommunications (MCET), and Chedd-Angier Company

Reference No.

ENC-000445

System Requirements

Laserdisc player with monitor; barcode reader; remote control; Macintosh computer (Macintosh Plus or better; 2 MB memory; 3MB free hard disk space; computer interface cable)

Evaluation

Awards: *Technology & Learning*, Award of Excellence; New York Film Festival, Top award in middle school science. Citations: Harwell, D. (March/April 1995). "Middle/High School Titles," *Multimedia Schools* 2, 2: 76–77; Reviewed for and included in *Resources for Teaching Elementary School Science* (1996) of the National Science Resources Center (NSRC).

Funding

United States Department of Education (ED); Office of Educational Research and Improvement (OERI)

Related Resources

Nine Worlds
This CD-ROM, hosted by Patrick Stewart, provides students in grades 9–12 with a history of our solar system through full motion video, 500 images, and 300 pages of text. (ENC-008522) *Palladium Interactive, telephone: (415) 464-5500*

Distant Suns
This CD-ROM introduces students in grades 7–12 to the fundamentals of astronomy. It contains over 1,500 space photos, the entire *Hubble Guide Star Catalog* of 16 million stars, and the *NASA Skymap Catalog* of 255,000 stars. (ENC-005773) *Virtual Reality Laboratories, Inc., toll-free: (800) 355-8597*

Rigby (distributor)
PO Box 797
Crystal Lake, IL 60039-0797
Toll-free: (800) 822-8661
Fax: (800) 427-4429
1 kit: Order #: 59440 $410.00

The Wonderful World of Plants; Nature's Shapes and Patterns; All about Forces

Series: Science Alive Interactive Multimedia

1995

Laserdisc

Grade levels: *K–5*

Abstract

This laserdisc kit is a video-based program that introduces students to plants, natural forces that shape the Earth, and patterns that are found in nature, art, music, buildings, and technology. The kit contains a double-sided laserdisc, 12 Science Alive *classroom booklets, a set of activity cards, and a teacher's guide. The laserdisc provides graphics and live-action video segments that help students recognize the diversity, features, and functions of plants, patterns, and forces. In the video segments, three elementary-age children are shown researching the plants, patterns, and geology of the world's ecosystems. In the plant units, the children discuss their observations and discoveries about each ecosystem, considering how plants have adapted and the ways in which they are used to meet human needs for food, clothing, fuel, and shelter. For each topic, teachers can choose a primary or intermediate track to narrate the lesson. The video lessons refer to complementary readings from the* Science Alive *booklets. Twenty-four activity cards are provided as guidelines for interaction with the material on the laserdisc and in the books. Each card offers one large group activity, two small group activities, and a blackline master for an individual activity that may be included in the students' science journals. Large group activities are designed to be used in conjunction with the laserdisc and* Science Alive *books to begin discussions, prompt scientific inquiry, and help students gain a new perspective of the scientific process. A sample small group activity has students devise a lab test for any force of nature, such as water, sunlight, wind, or gravity. The teacher's guide includes a barcode index, scripts for the laserdisc narrations, glossary, and bibliographic references. (Author/LCT)*

Author Designed, written, produced, and directed by Carol Anderson

Reference No. ENC-008274

System Requirements Laserdisc player and color monitor; barcode reader

Publisher Shorthand Publications (U.S.A.) Inc.

Note ENC has other volumes of this series in its collection, including:
Sensational Senses; Earth and Beyond; Exploring Energy (ENC-008273) and *Life and Living; Water, Water Everywhere; A World of Matter* (ENC-008275)

Optical Data School Media
512 Means Street NW
Atlanta, GA 30318
Telephone: (404) 221-4500
Toll-free: (800) 524-2481
1 kit: Order #: 192-7 $545.00
Note: Contact publisher for additional ordering information.

Primary Science, Volume 1

Series: Windows on Science: Primary Science

1994

Grade levels: *1–3*

Abstract

This laserdisc kit, Volume One of Primary Science, *contains five units that introduce a number of basic science concepts, including the scientific process, plants, and the roles of nutrition, hygiene, and exercise. Students learn how science is used in daily life and practice the skills of observing, sorting, and classifying. They also explore living and nonliving things, basic human anatomy, and the senses. Students are taken on a virtual tour of major climatic regions, observing plant and animal life, seasonal changes, and the relationships between human activity and environmental conditions. The Video Lesson Guide provides scripted lesson plans, suggestions for activities, and reproducible masters of activity sheets. The single-sided laserdisc features movie narrations in English and Spanish. The kit also includes an illustrated glossary and four multilingual materials packages with language-specific translations in Vietnamese, Chinese, Tagalog, and Spanish. Available upon request are correlations between* Windows on Science *and* AIMS, FOSS, GEMS, Insights, *and* SCIS. *(Author/LCT)*

Author

Program developers: William E. Clark, Elizabeth R. Paxton; authors: Anne Marie Muhlhauser, Stephanie Petron Cahill, Kimberly R. Lloyd

Reference No.

ENC-006758

System Requirements

Laserdisc player and color monitor; barcode reader

Note

ENC has other volumes of this series in its collection, including:
Primary Science, Volume 2 (ENC-006774), and *Primary Science, Volume 3* (ENC-006777)

Sunburst Communications, Inc.
101 Castleton Street, PO Box 100
Pleasantville, NY 10570-9961
Telephone: (914) 747-3310
Toll-free: (800) 321-7511
1 laserdisc/print package: Order #: 405302
$1,150.00
1 laserdisc/Mac software package: Order #:
716201 $1,895.00
Note: Contact publisher for additional ordering information.

The Voyage of the Mimi

Series: The Voyage of the Mimi

1990

Grade levels: *4–8*

Abstract

This curriculum kit is based on the story of the 72' ketch Mimi *and her crew, who set out to locate and study whales. The program combines laserdiscs, computer software, sensors, and print materials to present an integrated set of concepts in mathematics, science, social studies, and language arts. It includes the entire movie of the* Mimi *voyage and a variety of extension activities, such as learning all the parts of a boat, exploring the art of scrimshaw, and examining whale artwork. To make students more aware of the film medium, the laserdiscs feature behind-the-scenes information on how the* Voyage of the Mimi *was made. The overview guide contains lessons and activities for each of the video segments. Also provided are the content objectives, a vocabulary list, background information, a summary, and preview questions. For each episode, the guide offers enrichment activities and extending concepts. Supplementary materials include a navigation chart of the Gulf of Maine and a poster of marine mammals. The student book tells the story of the* Mimi's *adventures and contains full color illustrations and photographs. The book, which can stand alone, provides suggested activities that will engage students directly with the content of the story. (Author/KSR)*

Author

Bank Street College of Education

Reference No.

ENC-001069

System Requirements

Laserdisc player; color monitor; Spanish telecaptions require a 2-channel telecaption converter

Evaluation

Citation: Reviewed for and included in *Resources for Teaching Elementary School Science* (1996) of the National Science Resources Center (NSRC)

Funding

United States Department of Education (ED)

Note

ENC has other items in the *Mimi* series in its collection, including:
The Second Voyage of the Mimi (ENC-002551) and *Voyage of the* Mimi *CD-ROM Collection with Explore and Discover* (ENC-008363).

Optical Data School Media
512 Means Street NW
Atlanta, GA 30318
Telephone: (404) 221-4500
Toll-free: (800) 524-2481
1 laserdisc package: Order #: 559-0 $595.00
Note: Contact publisher for additional ordering information.

The Human Body

Series: Living Textbook: Life Sciences

1992, 1994

Grade levels: *7–12*

Abstract

This laserdisc kit uses video, print, and CD-ROM to present the eleven systems of the human body, from the cellular and tissue level to gross anatomy and system interactions. For each body system, this kit provides a general overview, detailed diagrams, and photomicrographs of both normal and pathological specimens. It also includes animations and movies that demonstrate some of the medical profession's clinical practices, such as angioplasty, ultrasound, and myoelectric prostheses. Sample topics include neural and endocrine control, cancer, HIV, and AIDS. Also discussed are renal function and human reproduction. The two double-sided laserdiscs contain approximately 1,000 still images such as micrographs and photographs of human dissections. The movie clips and computer animations illustrate body processes, including the cardiac cycle, protein synthesis, and immune response. Movie clips are narrated in both English and Spanish. In addition to the laserdiscs, each kit in the Living Textbook *series also provides an image directory and a CD-ROM with barcode references, questions, and classroom discussion ideas. Simple blackline diagrams are included in the CD-ROM. (Author/LCT)*

Reference No. ENC-005767

System Requirements

Level I version requires laserdisc player; color monitor; barcode reader optional. Level III requires computer; laserdisc player with computer interface; Video cards 3.0 software
Macintosh: 2MB RAM; 2MB hard disk drive; System 6.0.5 or later (System 7 requires 4MB RAM); HyperCard 2.0 or later
Windows: Windows 3.1; 386 25MHz or better; 4MB RAM; DOS 3.1; VGA monitor

Note

ENC has other kits in the *Living Textbook* series in its collection, including: *Principles of Physical Science* (ENC-005768) and *Field Trips* (ENC-005571).

Tom Snyder Productions
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 laserdisc kit: Order #: PIP-Y (English) or PIY-Y (Spanish) $249.95
Note: Can be ordered on 45-day trial basis. Mention ENC when ordering and receive free resource book ($19.95 value). Contact publisher for additional details.

Pip & Zena's Science Voyage

1996

Grade levels: *K–3*

Abstract

This laserdisc kit takes the whole class on a science adventure with Pip, her grandfather, and his fishing boat, Zena. Basic science concepts and their relevance to daily life are discussed. The two-sided laserdisc provides an illustrated story in which Pip asks her grandfather how science relates to her favorite toy, which is a replica of his fishing boat. Grandpa takes her on a voyage during which she learns how the fishing industry depends on several aspects of science and technology to safely navigate the ocean and find fish. Topics include tides, clouds, weather, and seasons. Students also learn about fish migration and reproductive cycles, sonar and radar, and radiotechnology and satellites. Grandpa emphasizes the importance of recording his observations and discoveries in his captain's log. Lessons, dispersed throughout the story, provide additional information and live-action segments on such diverse topics as maps, drawbridges, navigation equipment, and ocean floor topography. They also cover humpback whales, types of clouds, and the animal and plant life in a tide pool. Each lesson refers students to their own Captain's Logs, which contain games and activities that encourage them to draw or write about their own observations. Sample activities have students compare the size of whales to the largest known dinosaur and locate where they live on a United States map, then draw or write more about it. The teacher's guide provides a program overview, learning objectives, and detailed lesson plans that include advance preparation, optional activities, and connections to Internet resources. The guide also includes suggestions for home activities and ways to integrate mathematics, language arts, art, and other subjects. Additional materials include a Pip & Zena Pog set, barcoded reference chart, and reproducible blackline masters of student activity sheets. (Author/LCT)

Author

Designed and produced by Peter Reynolds and Annette Donnelly

Reference No.

ENC-006731

System Requirements

Laserdisc player and color monitor; remote control or barcode reader

Funding

Star Schools Program and Massachusetts Corporation for Educational Telecommunications (MCET)

Tom Snyder Productions
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 kit: Order #: TSE-A $149.95

TimeShift Radio: Electricity & Communication

Series: TimeShift Radio

1996

Grade levels: *5–8*

Abstract

This CD-ROM kit looks at how discoveries in electricity led to powerful new forms of communication, such as the telegraph and radio. Topics include Galvani's experiments with the effect of electricity on humans, Volta's invention of the battery, and Joseph Henry's development of the electromagnet. Also presented are circuits, receivers, amplifiers, and static and current electricity. Each unit is divided into three sections: Listening Day, Research Day, and Assessment Day. On Listening Day, a reporter travels back in time to unlock the mysteries of key scientific or mathematical discoveries. Following along in their Reporter's Journals, students make use of illustrated time lines, biographies, and class discussions to understand the material. On Research Day, a research assistant explains the concepts behind the discoveries. Students take a quiz on Assessment Day, after which the teacher collects the journals and evaluates students' answers with the class. Follow-up activities include the uses of metaphor and optional hands-on experiments, such as building a transmitter and making an electromagnet. The program also features lesson plans, background information, and teacher tips. The teacher's guide provides learning objectives, masters of student handouts, extension activities, and bibliographic references. (Author/LCT)

Author

Illustrated by Robert Keough, John Queenan, and Robert Thibeault

Reference No.

ENC-005717

System Requirements

Macintosh: System 7; 2.5MB RAM; color monitor; external speakers

17

Tom Snyder Productions
80 Coolidge Hill Road
Watertown, MA 02172-2817
Toll-free: (800) 342-0236
Fax: (617) 926-6222
1 laserdisc kit: Order #: TRI-A $249.95
Note: Can be ordered on 45-day trial basis. Mention ENC when ordering and receive free resource book ($19.95 value). Contact publisher for additional details.

Tri-City Science Club

1996

Grade levels: *3–6*

Abstract

This laserdisc kit presents the steps of the scientific method as the Tri-City Science Method. In their Travel Logs, students draw or write what they think science is and if it is part of their daily lives. They are then led on a journey beginning at the City of Imagination, where the character Simplicity Arcane wonders whether sunflower seeds will grow in peanut butter. Next is the City of Discovery, where an experiment is designed to test the hypothesis. In the City of Sharing, Simplicity presents her data, experimental methods, and conclusions. This leads to more questions and inspires new ideas, so back she goes to the City of Imagination. The intent is to model a process in which every answer leads to opportunities, possibilities, and exploration. The program seeks to inspire students' natural curiosity, to acknowledge and use many ways of expressing information, and to put all content, knowledge, and questions on equal ground. For each lesson, the teacher's guide outlines goals, procedures, and optional activities. It also includes reproducible masters and a lesson overview. (Author/FEB)

Author

Designed and produced by Peter Reynolds and Annette Donnelly

Reference No.

ENC-005844

System Requirements

Laserdisc player and color monitor; remote control; barcode reader; software driver (optional)
Macintosh: 4MB RAM; color monitor
Windows: 4MB RAM; 640x480 256-color monitor

Scholastic, Inc.
PO Box 7502
Jefferson City, MO 65102-9968
Toll-free: (800) 541-5513
Fax: (573) 635-5881
1 laserdisc set: Order #: DCL85234
ISBN 0-590-84868-2 $493.75

Animal Pathfinders, Level III

Series: Interactive NOVA

1989

Grade levels: *5–12*

Abstract

This interactive laserdisc program, one component of the Interactive Nova *laserdisc series, uses resources from the science television program,* Nova, *to engage students in the investigation of animals, human birth, and the environment. The laserdiscs contain video footage and slides of animals and habitats, while the accompanying Macintosh software provides a database of biological information. The program is intended to be an integral part of a biology or life sciences curriculum, particularly when studying such topics as ecology, environmental issues, animal behavior, and evolution. Teachers and students are encouraged to use this resource for lectures and demonstrations, guided inquiries, cooperative group learning, and independent research. The program can also be used for creating multimedia reports. Each of the 12 lessons incorporates a range of cognitive and research skills including recall, analysis, interpretation, and evaluation. Lesson topics include animal life cycles and habitats, protective coloration, mammal locomotion, and animal behaviors, including courtship. Students also learn of animal communication, food chains, metamorphosis, and the scientific method. The program discusses human threats to animals and environmental threats to sea turtles. Lesson plans provide learning objectives, background information, suggested teaching strategies, and questions for discussion or writing assignments. Also included are suggested activities, recommended readings for both teachers and students, and student worksheets with answers. A handbook contains instructions for setting up equipment, installing the software, and using the program. (LZ)*

Author

Apple Computer, Inc., WGBH Educational Foundation, and Peace River Films, Inc.

Reference No.

ENC-000680

System Requirements

Macintosh: System 6.0.5 or higher; for audio input features of ReportMaker, requires System 6.0.7 or higher and built-in sound input device; minimum 1MB RAM; laserdisc player; RS-232 cable to connect computer to laserdisc player; color video monitor (composite type)

Note

ENC has two other volumes of this series in its collection, including: *Earth, Level III* (ENC-005201) and *Race to Save the Planet, Level III* (ENC-000682).

National Geographic Society
PO Box 10597
Des Moines, IA 50340
Toll-free: (800) 368-2728
Fax: (515) 362-3366
1 laserdisc: Order #: T81044 (Macintosh) or T81036 (PC) $395.00

Planetary Manager, Level III

Series: GTV

1992

Grade levels: *5–12*

Abstract

This computer software and laserdisc program help students use their knowledge of the environment to form opinions and make decisions on environmental issues. Side one of the laserdisc provides an overview of major environmental issues, defining the term biosphere and examining the complex interaction of living and nonliving things. Students learn about ecosystems and how they work, the impact humans have had on the environment, and the differing viewpoints in environmental discussions. The program also covers the destruction of habitat, the endangerment and extinction of animals, and the actions that individuals can take in terms of environmental issues. Side two provides a closer look at specific issues such as pollution, ozone depletion, solid waste management, soil degradation, and water conservation. A timeline is provided to illustrate how fast the world's population is growing. World maps and blackline master maps are included. Using the software and laserdisc together, teachers and students can play shows in any order, search the archive, and read and write captions. They can also produce shows, examine maps, and browse a glossary. Features for each show include objectives, background information, and suggested pre- and post-viewing activities. A barcode and frame directory contains an index of all the shows and still images featured on the laserdisc. (Author/KSR)

Author

Produced in collaboration with LucasArts Learning

Reference No.

ENC-001558

System Requirements

Laserdisc player and color monitor; barcode reader
Macintosh: System 6.0.4 or later; 1MB RAM (2MB recommended)
IBM or compatible: DOS

Related Resources

Dwindling Resources
This CD-ROM examines each of the world's major energy resources, the ways they are used, their effects on life around the globe, and the problems posed by their decline. (ENC-007340) *Thomson Science (distributor), toll-free: (800) 354-9706*

Climate Change
This CD-ROM investigates topics related to global warming, such as increasing greenhouse gases, large-scale deforestation, and the effect of a climatic change on the environment. (ENC-007341) *Thomson Science (distributor), toll-free: (800) 354-9706*

Conservation
This CD-ROM examines the need to preserve the natural world, the threats posed to wildlife and the environment, and existing conservation schemes. (ENC-007342) *Thomson Science (distributor), toll-free: (800) 354-9706*

BEST COPY AVAILABLE

Edmark Corporation
6727 185th Avenue NE
Redmond, WA 98073
Toll-free: (800) 426-0856
Fax: (206) 556-8430
1 CD-ROM package (school version): Order #: 604-1176 $59.95
Note: To speak directly to customer service, call (800) 320-8379, ext. 3734, and ask for John Boygle.

Thinkin' Things Collection 1

Series: Thinkin'Things

1995

Grade levels: *PreK–3*

Abstract

This CD-ROM program has six activities designed to offer students experience with a variety of thinking skills, including memory, critical thinking, problem solving, and creativity. The Create mode allows students to experiment, explore, and create, and in the Question and Answer mode students answer a character's questions. In Oranga Banga students become familiar with the sounds of a variety of instruments and then try to repeat a pattern played for them. In BLOX-Flying Shapes, students use geometric shapes, motion, and sound to develop an awareness of spatial relationships and of the differences and similarities in shapes. The Feathered Friends section teaches students how to recognize, compare, and combine attributes, as well as how to use parts to create a whole. It also teaches them how to complete patterns and how to hypothesize and test a rule. In Toony Loon students improvise their own musical patterns and tunes on unique xylophones. In the final activity, Fripple Shop, customers order Fripples with specific attributes and the student must find them. This activity allows teachers and parents to observe how individual students learn. The teacher's guide includes additional hands-on activities and activity sheets. [This resource was acquired, cataloged, and abstracted for ENC by the EPIE Institute].

Author

Design: Donna Stanger, Scott Clough, and Tad Wood

Reference No.

ENC-004748

System Requirements

Macintosh: System 6.0.7 or higher; 4MB RAM (8MB recommended); CD-ROM drive; 256 color monitor
Windows: Windows 3.1 (enhanced mode), Windows 95 or later; 4MB RAM required (8MB recommended); Super VGA color monitor; CD-ROM drive; 2MB free; mouse; Windows-compatible sound output required

Evaluation

This item was evaluated by K–4 educators participating in the Ohio Department of Education Schoolnet Plus Software Review Project (SSRP) facilitated by ENC. Each item was assigned a score from 1 to 5 on Content, Learning, Technical, and Assessment Approaches, with 5 as the highest possible score on each dimension. This item received the following scores: Content=5. Learning Approach=3. Technical Approach=4. Assessment=0. Six State of Ohio and/or national standards were addressed by this item, with an average alignment of 3 on a five-point scale.

Note

ENC has two other volumes in this series in its collection: *Thinkin' Things Collection 2, Version 1.4* (ENC-004749) and *Thinkin' Things Collection 2, Version 1.01* (ENC-008561).

Edmark Corporation
6727 185th Avenue NE
Redmond, WA 98073
Toll-free: (800) 426-0856
Fax: (206) 556-8430
1 CD-ROM package: Order #: 604-1178 $59.95

Sammy's Science House

1994

Grade levels: *PreK–2*

Abstract

This CD-ROM provides five activities for students to practice the fundamental skills of observing, predicting, and constructing, as well as classifying, comparing, and sequencing. In the Workshop, students construct toys and machines using blueprints and parts from a pegboard. At Acorn Pond students observe how plants and animals adapt to seasonal change. Children also investigate animal habitats and discover how specific animals care for their young. With the Weather Machine, users manipulate weather variables and then observe animations that illustrate the weather they create. At the Sorting Station, students become familiar with some common scientific terms and discover how plants and animals are often classified. Using Make-a-Movie, students examine differences in a group of related pictures and apply logic to order them in a series. Each activity has three parts: Explore and Discover allows students to work on their own, getting help as needed from the program; Question and Answer asks students to do specific tasks within each activity; and Together Time contains take-home activities. The adult section allows the teacher to set program options for students and to adapt the program for students with special needs. The teacher's guide also contains activities and projects with curriculum connections to language arts, music, social studies, creative dramatics, art, and mathematics. [This program was acquired, cataloged, and abstracted for ENC by the EPIE Institute].

Author

Product development: Donna Stanger, Kathy Linstrum, Scott Clough, and Tad Wood

Reference No.

ENC-005088

System Requirements

Macintosh: System 6.0.7; 2MB RAM; 3.5" floppy drive; CD-ROM drive, color monitor
Windows: 386 or higher; VGA monitor; CD-ROM drive; 3.5" floppy drive

Evaluation

Citations: *Parent's Choice*, 1994, vol. 18, no. 4, p. 9; *School Library Journal*, 1/95, vol. 41, no. 1, p. 50; *Computer Teacher*, 3/95, vol. 22, p. 55; Parmigiani, Rosemary. Media Reviews: Software. *Media and Methods*, vol. 31, no. 1, p. 59 (September/October 1994). "The Better to Teach With." *Instructor*, vol. 104, no. 3, pp. 74–75 (October 1994).

This item was evaluated by K–4 educators participating in the Ohio Department of Education SchoolNet Plus Software Review Project (SSRP) facilitated by ENC. Each item was assigned a score from 1 to 5 on Content, Learning, Technical, and Assessment Approaches, with 5 as the highest possible score on each dimension. This item received the following scores: Content=5. Learning Approach=3. Technical Approach=4. Assessment=0. Five State of Ohio and/or national standards were addressed by this item, with an average alignment of 4.59 on a five-point scale.

Layton Marketing Group
1212 Red Fox Road
Arden Hills, MN 55112
Oakdale, MN 55128-3414
Toll-free: (800) 597-0227
1 CD-ROM disc (Macintosh/Windows): $29.95

What's the Secret? Volume 1, Version 1.1

Series: 3M Learning Software Series, Newton's Apple

1994

Grade levels: *3–12*

Abstract

This series of CD-ROMs, based on the TV series Newton's Apple, *uses a question approach to provide information. The program opens with a mural that represents the four major sections the user may explore: bees, sound, the circulatory system, and an amusement park. Each section contains a series of icons that do different things. The icons include Science Try It, Newt (a young Isaac Newton) Notes, Gadget TV, Patch Pak, and Time Line. Science Try It icons provide an activity including a procedure, predicted outcomes, and the scientific principles that explain the outcome. Newt offers science facts about the various topics. Gadget TV presents QuickTime movies about the topic section. For example, the bee section features movies of millipedes, spider webs, insects, and Africanized bees. Another section, the Doctor's Office, provides answers to questions such as what causes high blood pressure and why roller coasters make people sick. (Author/DEB)*

Author

Executive producer: Richard Hudson; producer: Joy Kopp

Reference No.

ENC-004973

System Requirements

Macintosh: 030 CPU, 25 MHz or better; System 7.0; 8MB RAM; color monitor; double-speed CD-ROM player
Windows: 486/25 SX; 4 MB RAM (8MB recommended); MS DOS 5.0; Windows 3.1; color monitor; Soundblaster (or compatible) audio card; speakers; double-speed CD-ROM player

Evaluation

Cinema in Industry, Gold *Cindy* Award, 1995; Council on International Nontheatrical Events, *Cine* Golden Eagle Award, 1995; *The Computer Museum*, 4 stars, 1995.

In August of 1996 this item was evaluated by K–4 educators participating in the Ohio Department of Education SchoolNet Plus Software Review Project (SSRP) facilitated by ENC. Each item was assigned a score from 1 to 5 on Content, Learning, Technical, and Assessment Approaches, with 5 as the highest possible score on each dimension. This item received the following scores: Content=4. Learning Approach=4. Technical Approach=3. Assessment=0. Seven State of Ohio and/or national standards were addressed by this item, with an average alignment of 2.75 on a five-point scale.

Note

ENC also has Volume 2 of the *What's the Secret? Collection* (ENC-004974).

Related Resources

Gizmos & Gadgets, Version 1.0
This software program, intended for students in grades 3–6, uses more than 200 puzzles and simulations to introduce physics concepts such as magnetism, simple machines, electricity, balance, force, gravity, and friction. (ENC-005261) *The Learning Company, toll-free: (800) 852-2255*

Videodiscovery, Inc.
1700 Westlake Avenue N, Suite 600
Seattle, WA 98109-3012
Telephone: (206) 285-5400
Toll-free: (800) 548-3472
Fax: (206) 285-9245
1 CD-ROM: ISBN 1-56307-439-7 (Mac/Windows)
$39.00
Note: Teacher guide included on CD-ROM.

The Wreck of the Fortuna Dourada

Science Sleuths Series: Elementary

1996

Grade level: *4*

Abstract

This CD-ROM, part of a series, presents a humorous science mystery in which students are asked to help an archaeologist decide which of three treasure hunters has found the correct location of the wreck of the Fortuna Dourada. *The series uses mysteries to develop a variety of problem-solving techniques and to reinforce life, earth, and physical science concepts. Each CD-ROM contains one episode that students solve by investigating clues and evaluating the evidence. The Senior Sleuth presents the mystery, and with hints from a talking fish named Watson, students conduct experiments, analyze test samples, and examine charts, tables, and graphs. They also read scientific articles and news stories, study photographs, and listen to expert interviews and testimonies. To deduce possible solutions, students examine data using a variety of tools, such as a mass spectrometer, Geiger counter, a pH meter, and magnets. Students also have access to an encyclopedia, glossary, and a database with search facility. To record and print out their findings, users are given an online laboratory notebook. When students have solved the mystery, they submit their results to the Senior Sleuth by electronic mail and use the results recorded in their notebooks to discuss their findings. A guide for teachers and parents provides a description of the program and the sleuth tools used in the episode. It also gives teaching guidelines and suggestions for informal and authentic assessments. (Author/LCT)*

Author

Executive producer: D. Joseph Clark

Reference No.

ENC-008501

System Requirements

Macintosh: System 7.1 or higher; 8MB RAM; color monitor; double-speed CD-ROM drive; 8 bit audio; speakers; printer
Windows: Windows 3.1 or Windows 95; 486/25 MHz; 8MB RAM; color monitor; double-speed CD-ROM drive; 16 bit audio; speakers; printer

Note

ENC has other volumes of the *Science Sleuths Elementary Series* in its collection, including: *Science Sleuths Elementary: Grade 3* (ENC-004761), *Science Sleuths Elementary: Grade 4* (ENC-004762), and *Science Sleuths Elementary: Grade 5* (ENC-004763).

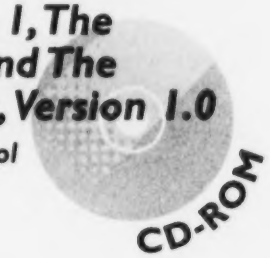
Videodiscovery, Inc.
1700 Westlake Avenue N, Suite 600
Seattle, WA 98109-3012
Telephone: (206) 285-5400
Toll-free: (800) 548-3472
Fax: (206) 285-9245
1 CD-ROM (Macintosh/Windows): $79.95
Note: Above price includes teacher manual and assessment software.

Science Sleuths: Volume 1, The Mysteries of the Blob and The Exploding Lawnmowers, Version 1.0

Science Sleuths Series: Middle School

1995

Grade levels: *6–12*



Abstract

This CD-ROM requires students to analyze and solve science mysteries. Inquiry-based problems challenge students to use the research methods and tools of practicing scientists to develop and present logical explanations. Users begin the program as apprentices, earning promotions as they progress through the program's difficulty levels. The program opens by introducing students to Sleuth Extraordinaire, who guides them through their solution-building case. Once the particular mystery has been presented, students develop possible hypotheses to explain the mystery. They work to support their hypotheses by conducting lab experiments, analyzing test samples, and examining charts, tables, and graphs. They also read scientific articles and news stories, examine photographs, and listen to expert interviews and testimonies. Some of the tools available to them include a mass spectrometer, Geiger counter, chromatograph, a pH meter, and a zoom-in tool. Students do not need to know how to use such equipment; the program will provide results, which students use to deduce possible solutions. Hints are available throughout the program, but students must be careful that the hints don't take them down the wrong track. Users also have access to an online calculator, encyclopedia, glossary, and a database with search facility. After students have been working in the lab for a while trying to solve the mystery, Sleuth Extraordinaire will guide them back to the office to review their work. The program provides constant feedback. [This resource was acquired, cataloged, and abstracted for ENC by the EPIE Institute.]

Author

Executive producer: D. Joseph Clark; production and direction: Pat Call

Reference No.

ENC-005144

System Requirements

Windows: Windows 3.1 or higher; DOS 3.1 or higher; multimedia 386SX/25MHz (486DX recommended); 4MB RAM; double-speed CD-ROM drive; color monitor; 8-bit sound card; headphones or speakers

Note

ENC has other volumes of the Science Sleuths Series (Middle School) in its collection, including: *Science Sleuths: Volume 2, The Mysteries of the Biogene Picnic & The Traffic Accident* (ENC-005144) and *Science Sleuths Level 1* (ENC-001245).

Scholastic, Inc.
PO Box 7502
Jefferson City, MO 65102-9968
Toll-free: (800) 541-5513
Fax: (314) 635-5881
1 laserdisc set: Order #: DCL85028 $493.75

The Miracle of Life, Level III

Series: Interactive Nova

1991

Grade levels: *5–12*

Abstract

This interactive laserdisc program uses resources from the science television program, Nova, *to engage students in the investigation of animals, human birth, and the environment. Topics covered include male and female reproductive systems, fertilization, and fetal development and birth, as well as responsible sexuality and puberty myths. The program is intended to be used when studying human reproduction or sex education. The laserdisc images include video footage and stills that show, for example, the development of sperm inside the body, the developing fetus, and an actual birth. This program was designed so that teachers and students would be able to use it for lectures and demonstrations, guided inquiries, cooperative group learning, independent research, and creating multimedia reports. Each lesson plan includes learning objectives, background information, and suggested teaching strategies. It provides questions for discussion or writing assignments that ask students to either recall the facts, understand the concepts, or think critically. Suggested activities follow the titles of the lessons. The guide also includes recommended readings for both teachers and students, and student worksheets with answers. A handbook provides detailed directions about setting up the equipment and installing the software. The package includes an overview of the entire program, including the database, activities, and resources. (KSR)*

Author

Apple Computer, Inc., WGBH Educational Foundation, and Peace River Films, Inc.

Reference No.

ENC-000683

System Requirements

Macintosh: System 6.0.5 or higher; 1MB RAM; for audio input features of ReportMaker, requires System 6.0.7 and built-in sound input device; RS-232 cable; laserdisc player; color monitor

Funding

Corporation for Public Broadcasting (CPB)

Related Resources

A.D.A.M.: The Inside Story, Macintosh Version 1.1
This CD-ROM and accompanying teacher's guide educate students in grades 5–8 about human anatomy. The CD-ROM contains 52 different anatomical and physiological animations. (ENC-007248) *A.D.A.M. Software, Inc., toll-free: (800) 755-2326*

Bob Winkle Solves Life's Greatest Mysteries, Macintosh Version 1.0
This CD-ROM, developed for home use and for grades 6–12, answers approximately 40 questions about the human body and mind, sickness, and physiologic phenomena. (ENC-007247) *A.D.A.M. Software, Inc., toll-free: (800) 755-2326*

Mayo Clinic Family Health, Version 2.0
This CD-ROM, developed for grade 5 and up, is the 1996 edition of a self-guided, multimedia approach to human health issues. It contains updated medical information and hundreds of new illustrations, animations, and videos. (ENC-003855) *IVI Publishing, telephone: (612) 996-6000*

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Videodiscovery, Inc.
1700 Westlake Avenue N, Suite 600
Seattle, WA 98109-3012
Telephone: (206) 285-5400
Toll-free: (800) 548-3472
Fax: (206) 285-9245
1 laserdisc set: ISBN 1-56307-286-6 $495.00
Note: MediaMax software, database and lessons software (Macintosh or IBM/compatible) also available. Contact publisher for further information.

Understanding Earth

1994

Grade levels: *6–12*

Abstract

This laserdisc is designed to teach geology, providing a database of photographs, graphics, animated segments, and films. It explains the processes involved in the formation of mountains, glaciers, deserts, rivers, rocks, and minerals. The program also explores such geologic phenomena as volcanism, plate tectonics, and erosion. A student's manual includes lessons that provide questions and activities to support the laserdisc. The teacher's guide provides teaching strategies and learning objectives for each lesson. Both English and Spanish narrations are available for the movies on the laserdisc. An annotated directory provides the concept, frame number, and barcode for each image. A supplementary software program, MediaMax, can be purchased separately to allow teachers to arrange custom lists of movies and images. (CCC)

Author

Videodiscovery, Inc. and W.H. Freeman and Company

Reference No.

ENC-001234

System Requirements

Laserdisc player and color monitor; barcode reader
For Level III interactive capabilities: MediaMax software and computer
IBM or compatible: MS-DOS 3.2; 286 (386 recommended); 1MB RAM; 520K free (2MB recommended); hard drive with 3MB available; VGA display; mouse; available serial port; Linkway software
Macintosh: System 6.0.5 (2MB RAM) or System 7 (4MB RAM); HyperCard 2.0

Related Resources

The Atmosphere: Weather, Climate, and Global Change, Level I
This level I laserdisc, which can be used in middle and high school classes, is a multimedia collection that presents such topics as the water cycle, biomes and climate, weather forecasting, ocean currents, and global circulation. (ENC-008064) *Videodiscovery, Inc., toll-free: (800) 548-3472*

Land and Air. PC edition, Version 1.00
This interactive multimedia CD-ROM compiles information from industry, government, and conservation groups on six major environmental topics: Natural Disasters, Dwindling Resources, Food or Famine, Climate Change, Air Quality, and Conservation. (ENC-007194) *Thomson Science (distributor), toll-free: (800) 354-9706*

National Geographic Society
PO Box 10597
Des Moines, IA 50340
Toll-free: (800) 368-2728
Fax: (515) 362-3366
1 kit: Order #: T81290 $325.00

Life Sciences, Level III

Series: Newton's Apple Multimedia Collection

1994

Grade levels: *5–12*

Abstract

This laserdisc kit is based on the Newton's Apple *public television shows and presents eight interactive lessons on life sciences. The double-sided laserdisc contains video segments that illustrate such diverse topics as the migration of the monarch butterfly, hip replacement surgery, and aerobic respiration. It also takes students on an imaginary journey into the human circulatory system to observe the battle between viruses and the immune system. Additional segments present the organization of life inside a bee hive, the mechanism of local anesthetics, and the process of photosynthesis. The teacher's guide provides barcode access for the full video clips, short segments of specific video events, and still frames of maps, diagrams, and key images from the video. Each chapter in the guide also includes background information, activities, and suggestions for teaching and assessment. In sample activities, students test how changing conditions affect mold growth, map the touch sensory receptors of the skin, and measure oxygen production in a green plant. The final section of the manual contains Scientist Profiles, which highlight scientists who are working in those fields covered in the kit. The computer software for this program allows teachers and students to sequence presentations from the laserdisc. It also features a library containing electronic files of information contained in the print materials. (Author/LCT)*

Publisher

KTCA, Twin Cities Public Television

Reference No.

ENC-005573

System Requirements

Macintosh: System 7.0 or higher; 4MB RAM (8MB recommended); color monitor; 3.5" disk drive; hard drive; laserdisc player; barcode reader

Funding

National Science Foundation (NSF); 3M Innovation

Related Resources

The Life Cycles Videodisc: A Database on Reproductive Biology, Level III
This laserdisc offers a database of photographs, graphics, and films that portray aspects of reproduction in animal and plant life, from cell division to birthing or budding. (ENC-001241) *Videodiscovery, Inc., toll-free: (800) 548-3472*

Thomson Science (distributor)
ITP Distribution Center
7625 Empire Drive
Florence, KY 41042
Toll-free: (800) 354-9706
Fax: (800) 487-8488
Level I set: ISBN 0-538-63066-3 $329.95

Liquid Assets: The Ecology of Water, Level I

1996

Grade levels: *9–12*

Abstract

This laserdisc kit focuses on various topics associated with water and the ecological issues surrounding it. Video case studies, animations, graphics, and activities are provided to stimulate student learning. Based on an integrated science approach, Liquid Assets *includes life, earth, and physical science strands, organized under six major themes: Change, Energy, Environment, Human Presence, Scale and Structure, and Systems and Interactions. The materials in the kit are centered around 21 video stories, which portray case studies on the Everglades and San Francisco Bay regions. The stories present examples of specific restoration efforts, profiles of endangered species, and interviews with native people, environmentalists, and others who are working toward change. Each story is supported by four topics that provide in-depth science background through graphics, photos, and animations. Sample animations include the chemical reactions that destroy the ozone layer, the greenhouse effect, the reproduction of flowering plants, fossil formation, and the Earth's rotation. The teacher's guide provides hands-on and inquiry-based activities. In one activity, students use serial dilutions to illustrate the concepts of parts per million and parts per billion. In others, they make a sextant and research natural disasters. The guide also provides suggestions for longer-term projects that combine research, hands-on activities, community action options, telecommunications, and presentations. Students can use e-mail to share their ideas and questions with environmental groups. Barcodes and reproducible masters of student worksheets are also provided. (Author/LCT)*

Author

Produced and developed by Paradesa Media; executive producers: Andrew Goodman and Michael Lerner

Publisher

Integrated Media Group

Reference No.

ENC-007081

System Requirements

Laserdisc player; color monitor; barcode reader or remote control device
No equipment specifications given for software.

Related Resources

The Water Planet: Oceanography, Marine Biology, and Freshwater Systems, Level I
This laserdisc, intended for grades 5–8, contains over 2,600 photographic images, 500 computer graphics, and nearly an hour of video sequences that include global satellite images, underwater motion sequences, and detailed photomicrographs. (ENC-008066) *Videodiscovery, Inc., toll-free: (800) 548-3472*

The Arctic Observatory
This CD-ROM package, developed for grade 9 and up, uses data gathered by submarines and satellites to help students analyze five parameters of the arctic environment: surface temperature, ice concentration, cloud amounts, near-surface winds, and ice velocity. (ENC-006719) *Consortium for International Earth Science Information Network (CIESIN), telephone: (202) 775-6600*

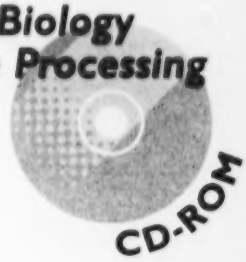
Center for Image Processing in Education
PO Box 13750
Tucson, AZ 85732-3750
Toll-free: (800) 322-9884
Fax: (520) 327-0175
1 CD-ROM package: $99.95
Note: Contact publisher for additional ordering information.

HIP Biology I: Discover Biology through Hands-on Image Processing

Series: HIP Biology

1996

Grade levels: 9–12



Abstract

This CD-ROM package, the first of two curriculum units in the HIP Biology *series, uses real data and hands-on image processing (HIP) techniques to help students understand fundamental biological concepts and process skills. Using image processing software developed for scientists, students explore a variety of biological images, such as X rays, magnetic resonance images (MRIs), DNA electrophoretic gels, and photomicrographs. Students use image enhancement to analyze data in botany, genetics, group behavior, and environmental studies. The CD-ROM provides images, image processing software, and lesson text. The guidebook contains background information for teachers, lesson plans, and blackline masters for student readings and worksheets. In a sample lesson on the cell cycle, students learn about mitosis and differentiation by examining photomicrographs of an onion root tip. They also use image enhancement to count cells in each phase of the cell cycle and infer the relative time spent in each phase. For each lesson, the guidebook summarizes the goals, biology strands, and process skills covered. It also includes a picture of the images under analysis and suggests extension activities. Students are guided through each keystroke of the image enhancement techniques and data collection methods. (Author/LCT)*

Author

Developed by the Image Processing for Teaching Project at the University of Arizona Lunar and Planetary Laboratory, Tucson, Arizona

Publisher

Center for Image Processing in Education, University of Arizona

Reference No.

ENC-008361

System Requirements

Macintosh: System 7.0 or later; color monitor; 2.5MB available RAM; hard drive; CD-ROM drive

Evaluation

Award: *Curriculum Administrator*, Top 100 Products of the Year

Funding

National Science Foundation (NSF)

Note

ENC also has *HIP Biology 2* in its collection: ENC-008362.

Videodiscovery, Inc.
1700 Westlake Avenue N, Suite 600
Seattle, WA 98109-3012
Telephone: (206) 285-5400
Toll-free: (800) 548-3472
Fax: (206) 285-9245
1 laserdisc package: ISBN 1-56307-040-5 $249.00

Physics of Sports: An Interactive Videodisc for Analyzing the Motion of Athletes

1992

Grade levels: *9–12*

Abstract

This laserdisc uses sports to introduce physics concepts to students. The laserdisc's six sections contain 20 sports activities and 173 films. On-screen measurement references such as a clock or a meter are provided within the activity scenes for students to measure and calculate physics quantities. The accompanying teacher's guide provides lesson descriptions, answers to questions in the student's guide, and teaching strategies. The student's guide introduces the contents with text, drawings, films, and formulae. It also provides problems that require students to collect and analyze data from the laserdisc. Barcodes are arranged in both guides where teachers and students may need to display the scenes. A supplementary software program, MediaMax, can be purchased separately to allow teachers to arrange custom lists of movies and images. (CCC)

Author

M. Larry Noble, Dean Zollman

Reference No.

ENC-001143

System Requirements

Macintosh: 1MB RAM; System 6.0.5 or above; HyperCard 2.0; laserdisc player; color monitor; cable to connect computer to laserdisc player; barcode reader

Funding

National Science Foundation (NSF)

Related Resources

Physics of Flight, Level I
This laserdisc, intended for grades 9–12, provides a database of photographs, graphics, animated segments, and films for teaching aerodynamics. Topics include physics principles related to flight, the ways that animals and plants use flight for survival, and the history of human flight. (ENC-001236)
Videodiscovery, Inc., toll-free: (800) 548-3472

Physics at Work: Image Database for Physics, Level III
This laserdisc, designed for grades 9–12, contains a database of over 1,500 photographs, films, and computer graphics to help students understand basic physics principles. (ENC-001242)
Videodiscovery, Inc., toll-free: (800) 548-3472

Physical Sciences, Level III
This interactive laserdisc kit, developed for grades 5–12, is based on the *Newton's Apple* public television shows, and presents eight lessons on the physical sciences. The video segments illustrate buoyancy, angular momentum, and the angle of reflection in mirrors. Additional segments present the Doppler effect, Newton's laws of motion, gravity, and inertia. (ENC-005574) *National Geographic Society, toll-free: (800) 368-2728*

Human Relations Media (HRM)
175 Tompkins Avenue
Pleasantville, NY 10570
Toll-free: (800) 431-2050
Fax: (914) 747-1744
1 laserdisc kit: Order #: KX-956-LD
ISBN 1-55548-549-9 $175.00
Note: Add 5% for shipping and handling costs. Contact publisher for additional ordering information.

Real World Problem Solvers: The Garbage Dump Dilemma

Series: HRM Laserdisc Kit

1992

Grade levels: *5–10*

Laserdisc

Abstract

This laserdisc kit gives students the opportunity to participate in a role-playing simulation that asks them to weigh alternatives rather than look for one right answer. In the story, students learn of a proposal to expand a landfill by eminent domain, an expansion that would require the destruction of a family farm. Two characters, Robert and Jessica, learn about their city's trash crisis by visiting a landfill, a recycling center, and sanitation department. Students then take on the roles of Jessica and Robert by analyzing the information and data provided on the laserdisc. They have to come up with a proposal for handling the city's growing trash problem, protecting the environment, and saving Robert's farm. Since there is no right answer, the emphasis is on using numbers as tools rather than as solutions. The kit includes a Laserdisc Navigator, which is a barcode guide to all parts of the story. The barcodes allow students or teachers to review any part of the story or visit any of the places necessary to collect data. The teacher's guide contains reproducible worksheets that help students work through the problems, teaching suggestions, solutions to the laserdisc problems, and answers for all the worksheets. This kit is also available in videotape format. The materials in this kit were designed with the National Council of Teachers of Mathematics (NCTM) Curriculum and Evaluation Standards for School Mathematics *(1989) in mind. (Author/LDR/KSR)*

Author

Executive producer: Michael Hardy; writer/producer/director: Thomas Sturdevant

Reference No.

ENC-007086

System Requirements

Laserdisc player and color monitor; barcode reader

Evaluation

Award: Silver Apple, 1993 at National Educational Film and Video Festival, for mathematics and computer science for high school; Honorable mention, 1993, at the Columbus International Film and Video Festival.

Related Resources

Exploring Perimeter, Area and Volume: The Zoo Design Challenge
This hands-on laserdisc kit, for grades 5–9, provides students with an introduction to the geometric concepts of space and measurement. The story draws students into a situation about two teens working at a local zoo who try to design a better monkey habitat. (ENC-007227) *Human Relations Media, toll-free: (800) 431-2050*

Making Connections through Geometry: The Search beneath the Sea
This hands-on laserdisc kit, developed for grades 5–8, introduces students to the use of geometry as a problem-solving tool. Students use the kit's worksheets, maps, newspapers, and manipulatives to explore tessellations, angle measures, similar figures, and other geometric concepts. (ENC-007229) *Human Relations Media, toll-free: (800) 431-2050*

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Sunburst Communications
PO Box 100, 101 Castleton Street
Pleasantville, NY 10570
Telephone: (914) 747-3310
Toll-free: (800) 321-7511
Fax: (914) 747-4109
1 CD-ROM package (Macintosh/Windows): Order #: 6848EG $49.95
Note: Contact publisher for additional ordering information.

Our Environment

Series: Young Producer

1996

Grade levels: *3–8*

Abstract

This CD-ROM is part of a collection of multimedia databases designed to engage elementary students in the active search for information about a particular topic. This disc contains sequences of photographs and video images that depict natural resources and the ways in which people affect nature. The sequences range from concepts with which the students may be familiar, such as the water cycle, to those with which they may be less familiar, such as efforts to protect the environment. Additional topics included soil erosion, vegetation, and energy resources, as well as air and pollution. Each sequence includes a case study in which an environmental issue is presented via pictures, text, and quantitative data. In addition to the resources, the CD-ROM provides a search engine and a workshop called the Studio, where students can select items from the database, add their own voices or text, and add special frame effects. The See Show icons allow students to show and print their presentations. The teacher's guide contains detailed instructions for installation and use as well as a tutorial for teachers. Additional information includes classroom management tips, six offline activities, and rubrics for scoring presentations. Sample activities have students identify limestone by testing with an acidic solution and do a quadrant survey of two plant communities with different levels of light. A glossary, description of menu icons, and trouble-shooting tips are also provided. (Author/LCT)

Author

Executive producer: Shimon Dembinsky; producer and director: Yuval Amir

Publisher

Edunetics Corporation and Sunburst Communications

Reference No.

ENC-004723

System Requirements

Windows: Windows 3.1, 3.11, or 95; 486 33 MHz (66 MHz or higher recommended); 8MB RAM; 1MB free hard drive space to run from the CD; double-speed CD-ROM drive; SoundBlaster Pro, Sound Blaster 16, or 100% audio board; VGA color monitor; headphones or speaker
Macintosh: System 7.1; 68040 or PowerPC processor; 8MB RAM; double-speed CD-ROM drive; color monitor

Note

ENC has two other volumes in this series in its collection, including: *Animals in Their World* (ENC-008356)

CD-ROMs and Laserdiscs for Science

The Web sites featured below are just a sampling of the Internet resources available to help teachers implement the use of technology and the Internet into their classroom instruction. Many of these sites feature links to other related sites that can also prove helpful. To find more Internet resources for integrating technology into the curriculum, try searching the Resource Finder for key words: "technology" and "professional development," with a resource type of "Web." ENC Online's Lessons and Activities section (URL: <http://www.enc.org/classroom/index.htm>) features links to Web sites designed to help educators implement the Internet into the classroom. Also, you can try searching the NetTech Web site at URL: <http://www.nettech.org/>.

Grants and Other (People's) Money

URL: http://quest.arc.nasa.gov/top/grants.html

To help educators, schools, and districts fund their attempts to successfully utilize the Internet and information technology in the classroom, the NASA K–12 Internet Initiative Web site provides a list of grants and the organizations that provide them. Available from Federal agencies, commercial interests, and other sources, these grants focus on science, math, engineering, and educational technology. The site also contains links to specific grants that users can explore, as well as links to the Web sites of organizations that sponsor grant programs, including the U.S. Department of Education and the National Telecommunications and Information Administration (NTIA). (Author/JLH)

Educational Technology: Support for Inquiry-Based Learning

URL: http://ra.terc.edu/alliance_resources_services/reform/tech-infusion/ed_tech/ed_tech_intro.html

This Web site, maintained by The Eisenhower Regional Alliance for Mathematics and Science Education Reform, features a paper that explains inquiry-based learning, discusses technology's potential role in it, and categorizes software products in terms of their relationship to inquiry-based learning. In Section 1, author Andee Rubin sets forth some of the common themes of inquiry-based learning, describes how technology can be used to support it, and addresses the effect it has on student learning. Section 2 presents a list of 12 different categories of software, such as information-handling tools and educational games, and explains how each type of software does or does not support inquiry-based learning. It also includes specific examples illustrating the types of thinking and problem solving students might engage in while using each category of software. The paper provides a list of references and additional readings. (Author/JLH)

School House/WorldVillage

URL: http://www.worldvillage.com/wv/school/html/school.htm

WorldVillage maintains this Web site devoted to educational software reviews, feature articles, cartoons, software downloads, and links to other educational Web sites. It contains six main sections: Feature Articles, Site of the Week, Live Chat, Software Reviews, Download, and Parental Control. In the Feature Articles section, users have access to a variety of technology-related articles and interviews with software designers. The Site of the Week highlights a notable educational Web site and contains an archive of past sites. In the Live Chat section, visitors to the site can interact with other users. Software products are reviewed in depth in the Software Reviews section, evaluated according to their ease of use, learning and entertainment value, graphics, and sound. In the Download section, users can acquire exemplary educational software in the categories of foreign language, history, geography, and preschool. Finally, the Parental Control section features links to Web sites that address the issue of helping parents protect their children on the Internet. Users can also link to the School 2000 Web site, which contains links to school

Web pages all around the country and the world, including Canada, Australia, and Ireland. (Author/JLH)

TeachNet

URL: http://www.teachnet.org/

This World Wide Web site is the home page of The Teachers' Network, a nationwide, non-profit organization that supports innovative teaching in the public schools. The site provides teachers with opportunities to exchange ideas and learn about funding opportunities. In the daily Blue Plate Special, K–3 teachers can find ideas for homework assignments, classroom activities, and assessment and research strategies. Links to additional sites and Web site reviews are also provided. (Author/LCT)

Pathways to School Improvement

URL: http://www.ncrel.org/sdrs/pathways.htm

The North Central Regional Educational Laboratory (NCREL) provides this Web site to address critical issues identified by educators, researchers, and community leaders. These issues are organized into five main categories: Content Areas, Environment, Educators, Students, and Teaching. Issues related to technology can be found in the Teaching section, such as developing a school or district technology plan and using technology to enhance engaged learning for at-risk students. For each issue, users can find practical, action-oriented summaries of best practice and research, descriptions of schools that have successfully addressed the issue, and collections of materials to support change. Contributions come from America's leading educational research centers and universities. The site also features announcements of recent developments at NCREL and links to other exemplary educational Internet resources. (Author/DEB/JLH)

US Department of Education Technology Initiatives

URL: http://www.ed.gov/Technology

Through projects initiated under the Improving America's Schools Act and through long-term programs, the Department of Education promotes the use of technology in schools, libraries, and communities to achieve its mission of ensuring equal access to education and promoting educational excellence throughout the nation. This site contains a large variety of links to technology-related legislation, federal documents, funding opportunities, and educational events. (Author/JLH)

National Center for Technology Planning (NCTP)

URL: http://www.nctp.com

This World Wide Web site acts as a clearinghouse for the exchange of many types of information related to technology planning. This information includes downloadable school district technology plans and technology planning aids such as checklists, brochures, sample planning forms, and public relations announcement forms. Also provided are monographs on selected timely topics. (Author/LDR)

CD-ROMs and Laserdiscs for Science

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- ❑ *ENC Focus – Calculator-Active Materials*
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- ❑ *Guidebook of Federal Resources for K–12 Mathematics and Science*
- ❑ *CD-ROM Request Form*

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❑ *Some other area*_____

Teachers, please circle those grades which you teach
Administrators, circle those for which you have responsibility K 1 2 3 4 5 6 7 8 9 10 11 12
Teacher educators, circle those for which you prepare teachers

For K–12 Teachers and Administrators:
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Eisenhower National Clearinghouse for Mathematics and Science Education

Ordering Instructions for ENC CD-ROMs

This summer and fall the Eisenhower National Clearinghouse for Mathematics and Science Education (ENC) is issuing the second and third volumes of CD-ROMs (two discs in each volume). Each volume of ENC CD-ROMs includes Resource Finder, a catalog of mathematics and science curriculum materials.

The second volume, available now while supplies last, features stories of teachers across the country striving to implement innovative teaching methods in their districts and original research papers by leaders in math and science education.

The third volume will be completed in the fall of 1997. Each of these discs covers important topics in math and science education today. The theme of one disc is equity in the math and science classroom, with classroom stories and resources for discussing and working on equity challenges. The other disc in the third volume centers on the Third International Math and Science Study, with a toolkit and additional materials to help teachers understand this important student assessment.

Ordering free ENC CD-ROMs

One of each ENC CD-ROM will be provided free to schools requesting it. Those schools that request an ENC disc will receive all subsequent volumes. Therefore, if you have requested an earlier disc, you do not need to send in a new request form to receive future volumes.

Requests by schools for free CD-ROMs must be forwarded to ENC by mail or fax and MUST be accompanied by a letter on school letterhead signed by the principal. Schools must supply complete information on the form in order to receive the free CD-ROMs.

Equipment Requirements

The minimum equipment requirements for using the ENC CD-ROMs are a Macintosh with a 68030 processor or better OR a DOS-compatible machine running Windows 3.11 or later. Additionally, 10 megabytes of hard disk storage space are needed and 6 megabytes of RAM (8 megabytes preferred).

Purchasing additional CD-ROMs

Although one copy of each disc is free to every school, additional copies can be purchased. ENC's first volume (two discs) is available through the Superintendent of Documents for the Government Printing Office (while supplies last). The cost per disc is $15.

Call (202) 512-1800 and order stock numbers 065-000-00893-9 and 065-000-00962-5.

Send requests for free CD-ROMs to:
Eisenhower National Clearinghouse
The Ohio State University
1929 Kenny Road
Columbus, OH 43210-1079
Fax: (614) 292-2066

For additional information:
Phone: (800) 621-5785 or (614) 292-7784
E-mail: cd_request@enc.org

SCHOOL REQUEST

(Must be accompanied by a letter on school letterhead signed by the principal)

School Name

District

Address

City/State/Zip

Person/Position to whom disk should be sent

Where will the CD-ROM be used

- ❑ *Library/Media Center*
- ❑ *Teacher Resource Center*
- ❑ *Other (please describe)*
- ❑ *Classroom*
- ❑ *Computer Lab*

Computer system you will be using to play the CD-ROM (make and model)

Macintosh:

IBM/PC Compatible/Windows:

Eisenhower National Clearinghouse for Mathematics and Science Education

Eisenhower National Clearinghouse
The Ohio State University
1929 Kenny Road
Columbus, OH
43210-1079
Voice: (800) 621-5785
Fax: (614) 292-2066

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Directory of Eisenhower Mathematics and Science Regional Consortia

Appalachia Region

Eisenhower Regional Math/Science Consortium at AEL
Appalachia Educational Laboratory
PO Box 1348
Charleston, WV 25325-1348
Phone: (800) 624-9120/Fax: (304) 347-0487
States Served: Kentucky, Tennessee, Virginia, West Virginia

Far West Region

WestEd Eisenhower Regional Consortium for Science and Mathematics Education
730 Harrison Street
San Francisco, CA 94107
Phone: (415) 241-2730/Fax: (415) 241-2746
States Served: Arizona, California, Nevada, Utah

Mid-Atlantic Region

Mid-Atlantic Eisenhower Consortium for Mathematics and Science Education
Research for Better Schools
444 North Third Street
Philadelphia, PA 19123-4107
Phone: (215) 574-9300/Fax: (215) 574-0133
States Served: Delaware, Washington DC, Maryland, New Jersey, Pennsylvania

Mid-Continent Region

Eisenhower High Plains Consortium for Mathematics and Science
Mid-continent Regional Educational Laboratory
2550 South Parker Road, Suite 500
Aurora, CO 80014
Phone: (303) 743-0990 or (800) 949-6387
Fax: (303) 337-3005
States Served: Colorado, Kansas, Missouri, Nebraska, North Dakota, South Dakota, Wyoming

North Central Region

Midwest Consortium for Mathematics and Science Education
North Central Regional Education Laboratory
1900 Spring Road, Suite 300
Oak Brook, IL 60521-1480
Phone: (630) 571-4700/Fax: (630) 571-4716
States Served: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin

Northeast and Islands Region

Eisenhower Regional Alliance for Mathematics and Science Education Reform
TERC
2067 Massachusetts Avenue
Cambridge, MA 02140
Phone: (617) 547-0430/Fax: (617) 349-3535
States/Areas Served: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Puerto Rico, Virgin Islands

Northwest Region

Science and Mathematics Consortium for North West Schools
Columbia Education Center
11325 SE Lexington
Portland, OR 97266-5927
Phone: (503) 760-2346/Fax: (503) 760-5592
States Served: Alaska, Idaho, Montana, Oregon, Washington

Pacific Region

Pacific Mathematics and Science Regional Consortium
Pacific Region Educational Laboratory
828 Fort Street Mall, Suite 500
Honolulu, HI 96813
Phone: (808) 533-6000/Fax: (808) 533-7599
States/Areas Served: American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia (Chuuk, Kosrae, Pohnpei, Yap), Guam, Hawaii, Republic of the Marshall Islands, Republic of Palau

Southeast Region

SERVE Eisenhower Consortium for Mathematics and Science Education
SouthEastern Regional Vision for Education
345 South Magnolia Drive, Suite E-22
Tallahassee, FL 32301-2950
Phone: (904) 671-6033/Fax: (904) 671-6010
States Served: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina

Southwest Region

Southwest Consortium for the Improvement of Mathematics and Science Teaching
Southwest Educational Development Laboratory
211 East Seventh Street
Austin, TX 78701-3281
Phone: (512) 476-6861/Fax: (512) 476-2286
States Served: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

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